

**Abstract**

A computer system and a method for segmentation of a digital image

The invention relates to a method for segmentation of a digital image being represented by picture element data for the purposes of visualization, segmentation and quantification, such as determining the volume of a segment. The method comprises the steps of performing a watershed transformation of the digital image by applying a watershed transformation method on the picture element data to provide one or more basins and post-processing by processing the picture element data belonging to at least one of the basins, where post-processing is one or a combination of the following steps: (i) gray-scale based segmentation, (ii) visualization using a transfer function, or (iii) volumetry using histogram analysis.